

STRATEGY  
RESEARCH  
PROJECT

The views expressed in this paper are those of the author and do not necessarily reflect the views of the Department of Defense or any of its agencies. This document may not be released for open publication until it has been cleared by the appropriate military service or government agency.

**A STUDY ON REGIONAL EMERGENCY MANAGEMENT:  
A COMPARATIVE ANALYSIS**

BY

**LIEUTENANT COLONEL RENALDO RIVERA  
United States Army**

**DISTRIBUTION STATEMENT A:**

Approved for public release.  
Distribution is unlimited.

19960620 103



USAWC CLASS OF 1996

U.S. ARMY WAR COLLEGE, CARLISLE BARRACKS, PA 17013-5050

DISTRIBUTION STATEMENT A:  
Approved for public  
release. Distribution is  
unlimited.

USAWC STRATEGY RESEARCH PROJECT

A STUDY ON REGIONAL EMERGENCY MANAGEMENT:

A COMPARATIVE ANALYSIS

A Strategic Research Paper Submitted To  
THE STRATEGIC STUDIES INSTITUTE

BY

Lieutenant Colonel Renaldo Rivera

Colonel William J. Doll  
Project Advisor

U.S. Army War College  
Carlisle Barracks, Pennsylvania 17013

April, 1996

The views expressed in this paper are those of  
the author and do not necessarily reflect the  
views of the Department of Defense or any of  
its agencies. This document may not be  
released for open publication until it has  
been cleared by the appropriate military  
service or government agency.

## ABSTRACT

AUTHOR: Renaldo Rivera (LTC), Virgin Islands Army National Guard  
TITLE: Regional Emergency Management: A Comparative Analysis  
FORMAT: Strategy Research Project  
DATE: 6 April 1996 Pages: 24 CLASSIFICATION: Unclassified

There are two separate emergency systems that are used in the Caribbean to address disaster relief. They are: the Federal Emergency Management Agency (FEMA) and the Caribbean Community (CARICOM). FEMA is the United States' response to disaster relief operations and CARICOM is the Caribbean island nations organization to assist each other in time of need. This paper provides a comparative analysis of both systems and outlines the differences and similarities as the two organizations conduct relief operations before, during and after a disaster strikes. This paper will introduce the reader to CARICOM, a system not well known to most. Its results are the same, if not equal, as FEMA in disaster relief.

After a brief historical review it will outline the Army's participation in disaster relief and address the idea of a shift in Army involvement in these operations. The conclusion is that the Army is best suited of all services for these types of operations and should prepare for more such missions in the future, using resources available in the Caribbean Basin.

## LIST OF ILLUSTRATIONS

Figure	Page
1. Map, Caribbean Basin.....	3
2. Map, Active Volcanoes.....	4
3. Map, Storm Patterns.....	5
4. List, Disaster Support Operations.....	7
5. FEMA, Emergency Service Functions.....	8

#### LIST OF ABBREVIATIONS

NCA	National Command Authority
FEMA	Federal Emergency Management Agency
DoD	Department of Defense
USACOM	United States Atlantic Command
CARICOM	Caribbean Community
RSS	Regional Security System
DSO	Disaster Support Operations
DSR	Disaster Survey Report
AO	Area of Operations
USVI	United States Virgin Islands
PR	Puerto Rico
VITEMA	Virgin Islands Territorial Emergency Agency
FM	Field Manual
CAT	Category
MPH	Miles Per Hour
MP	Military Police
C	Combat
CS	Combat Support
CSS	Combat Service Support
PEP	People Exchange Program

#### INTRODUCTION:

The United States the British island nations and other countries of the Caribbean have established two separate emergency systems to combat disaster. These systems are: the Federal Emergency Management Agency (FEMA) and the Caribbean Community (CARICOM). The thrust of this paper is to provide a comparative analysis of both systems and outline their similarities and differences as they conduct disaster relief operations. This analysis is based on doctrine, several disaster relief operations publications, the author's personal knowledge and experience of both systems and personal interviews with those who work in disaster relief.<sup>1</sup>

As an aside, this paper will provide an historical review of the US Army's involvement in disaster relief operations and discuss the efforts it has established with local authorities to provide assistance in their time of need. Also considered will be the interagency process and the recommended military strategy to address disasters.

#### CARIBBEAN DISASTERS:

Disaster relief is extremely important in the Caribbean region. The unique location of its island nations and the constant threat of storms between the months of June and November, require that plans addressing the effects associated

with storms be developed and coordinated.

The Caribbean Basin, figure 1, is located in the Western Hemisphere and comprises of a chain of islands known as the Greater and Lesser Antilles or Eastern Caribbean and the nations at the periphery of the South American continent and Central America. The basin with its constant storm threat, also has active volcanoes, such as Mt. Pelee on Martinique and La Soufriere on St. Vincent (see figure 2). They occasionally produce seismic shocks to remind their inhabitants that a catastrophic event likely will happen sometime in the future.<sup>2</sup>

Unlike the states of the Continental United States (CONUS), where assistance is just a state or county away, the islands do not have easy access to resources that will provide immediate relief in the aftermath of storms, earthquakes, fires and floods. Coordinated recovery efforts must be sufficient from within the small island nations themselves until help from the outside arrives. The Caribbean nations must rely on the relief efforts provided by FEMA and CARICOM. The relief efforts provided by these two organizations are usually associated with the very threatening frequent storms. These storms are caused by severe weather patterns generated off the coast of West Africa, and following the patterns shown in figure 3. The storms are characterized as Tropical Disturbances, Tropical Storms and Hurricanes and then given names that are burned into popular imagination.<sup>3</sup> During 1995, as an example illustrated in figure 4, the hurricane season generated 10 hurricanes and seven

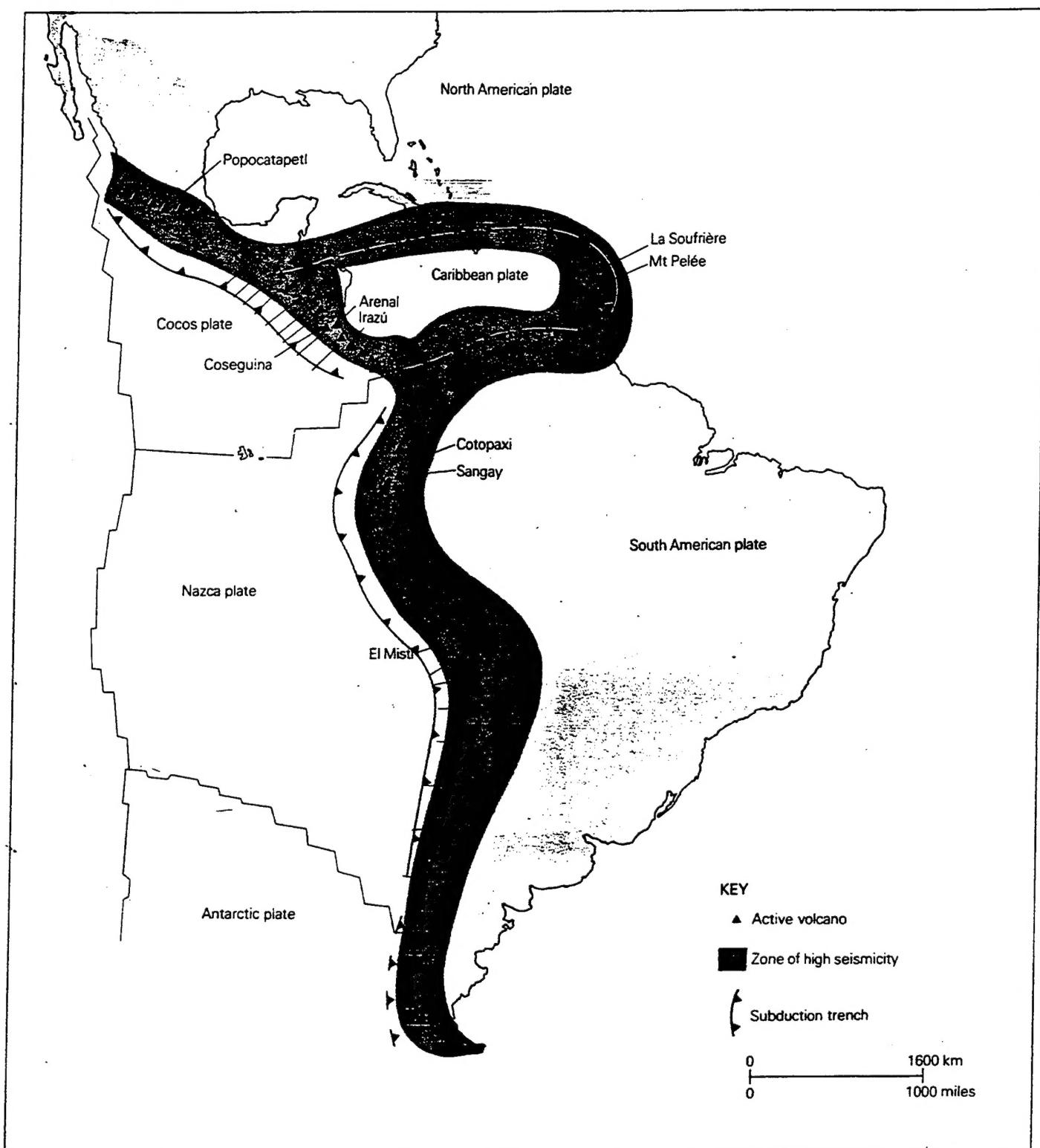
Figure 1

## The Caribbean



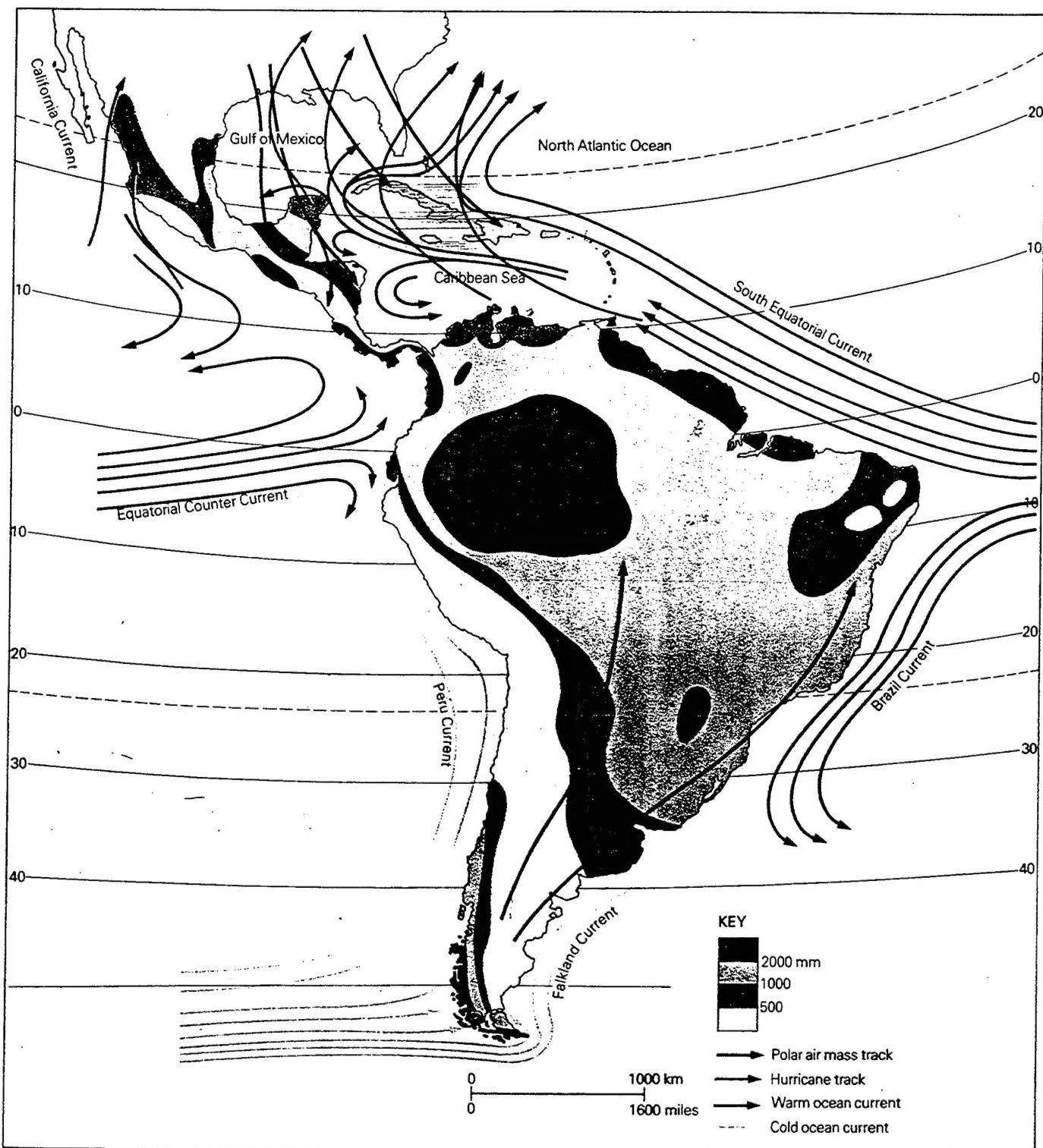
801553 (544517) 8-90

## VOLCANOES AND SEISMICITY



## Climate

MEAN ANNUAL PRECIPITATION, OCEAN CURRENTS, TRACKS OF POLAR AIR AND HURRICANES



tropical storms that caused deaths and mass destruction. Weather patterns are characterized as follows:

<u>Type</u>	<u>Wind Speed</u>	<u>Category</u>	<u>Damage Capability</u>
* Disturbance	10-34	Tropical Disturbance	Rain and flooding
* Storm	35-73	Tropical Storm	Severe, ruined shorelines
* Hurricane	74-85	Category One	Major damage, possible death
	86-101	Category Two	Major destruction
	102-124	Category Three	Great devastation
	124-over	Category Four	Rains, sea surge, and tornadoes.

DISASTER RESPONSE: FEMA.

In the U.S. the mechanism used for disaster response is the Federal Emergency Management Agency (FEMA).<sup>4</sup> "The FEMA is the federal government's executive agent for implementing federal assistance to states and local governments. In most cases, it implements assistance in accordance with the Federal Response Plan. Organized into ten regions that provide support on a national basis, FEMA may be involved in either disaster or environmental assistance operations."<sup>5</sup>

Since its inception in 1977, FEMA has had twelve Emergency Support Functions (ESF), illustrated in figure 5. Each function has well trained and dedicated personnel that are available to address calamity when it strikes and provide relief as required.

Figure 4

DISASTER RELIEF OPERATIONS

@ Past:

- \* Operations Hawkeye: Hurricane Hugo, 1989  
Humanitarian Assistance and law-and- Order Operations
- \* Hurricane Andrew:  
Disaster relief in Florida and Louisiana
- \* Hurricane Iniki:  
Disaster relief in Hawaii
- \* Typhoon Omar:  
Disaster relief in Guam
- \* Restore Hope:  
Secure relief delivery in Somalia

@ Recent (1995):

- \* Hurricane Allison:  
Disaster relief in Texas
- \* Hurricane Erin:  
Disaster relief for the Florida panhandle
- \* Hurricane Luis:  
Disaster relief for Puerto Rico and USVI
- \* Hurricane Marilyn:  
Disaster relief for the USVI
- \* Hurricane Opal:  
Disaster relief for the Florida panhandle

Figure 5

FEDERAL RESPONSE PLAN

* ESF ORG	1 TRANSPORTATION	2 COMMUNICATIONS	3 PUBLIC WORKS AND ENGINEERING	4 FIREFIGHTING	5 INFORMATION AND PLANNING	6 MASS CARE	7 RESOURCE SUPPORT	8 HEALTH AND MEDICAL SERVICES	9 URBAN SEARCH AND RESCUE	10 HAZARDOUS MATERIALS	11 FOOD	12 ENERGY
USDA	S	S	S	P	S	S	S	S	S	S	P	S
DOC		S	S	S	S	S	S			S		
DOD	S	S	P	S	S	S	S	S	P	S	S	S
DOED					S							
DOE	S		S		S		S			S		P
DHHS			S		S	S	S	P	S	S	S	
DHUD						S						
DOI		S	S	S	S					S		
DOJ					S				S		S	
DOL			S				S		S	S		
DOS	S									S		S
DOT	P	S	S		S	S	S	S	S	S	S	S
TREAS					S							
VA			S			S	S	S				
AID								S	S			
ARC				S	P			S			S	
EPA			S	S	S			S	S	P		S
FCC	S											
FEMA		S	S	P	S	S	S	S	S	S	S	S
GSA	S	S	S		S	S	P	S	S	S		S
ICC	S											
NASA					S							
NCS		P			S		S	S				S
NRC					S					S		S
OPM							S					
TVA	S		S									S
USPS	S					S		S				

P - Primary Agency: Responsible for Management of the ESF

S - Support Agency: Responsible for Supporting the Primary Agency

*Emergency Support Function Assignment Matrix*

To insure these functions are viable, the 1974 Public Law 93-288 directed FEMA to prepare a Federal Response Plan (FRP) for most natural, man-made and technological disasters. The twelve ESF mentioned above are part of this response plan. Nine are used in calamities that require military manpower and resources. The functions of transportation, communication, public works and engineering can be readily accomplished, given the normal capabilities of selected military units already in the task listing. The functions of firefighting and urban search and rescue are usually assigned to the US Department of Agriculture, with the military in close support. In the role of security and public safety, military forces are intensely employed to quell the looting and lawlessness usually associated with disaster.<sup>6</sup>

FEMA relief efforts address disasters such as earthquakes, hurricanes, typhoons, tornadoes, volcanic eruptions and oil and chemical spills. Of these, the focus for the Caribbean is logically on hurricanes. FEMA functions in four areas during these disasters. These areas are: Preparedness, Response, Recovery and Mitigation.<sup>7</sup> In the Preparedness phase, FEMA's representatives travel to their assigned regions and assist local emergency agencies in the conduct of workshops and the development of exercise scenarios. It is their job to provide the best possible technical expertise to insure that there is a coordinated effort in place. In the Response phase, regional representatives travel ahead of the crisis, if possible, to 'set up shop'. This method assists, in the event of a request to the

President, for that office to speedily declare the state, territory or local government, a disaster area. In the Recovery stage, the efforts last as long as necessary to bring an area back to normalcy, or for the state requesting the assistance to certify that it no longer requires FEMA's expertise. In the Mitigation phase, an audit or 'paper trail' is generated to insure that plans are in place as part of an integrated, all-hazard emergency management program.<sup>8</sup>

The Governor of the state or territory implements this system, and is its single command authority within the state. As such he "receives the Governor's Summary Disaster Report from the State EOC and submits requests for additional information. Based on the report he receives, he assesses the general extent and severity of the disaster and may decide to do nothing, or he may declare a state of emergency in the effected counties."<sup>9</sup> The governor submits his requests through the Federal Field Office (FFO) in his state which in-turn prepares and submits the Initial Federal Disaster Report to the Federal Regional Center for processing.<sup>10</sup>

At the federal level The Federal Civilian Agency Headquarters (FCAH) processes disaster information submitted by the state FRC and prepares and transmits the President's Disaster Summary Report.<sup>11</sup>

At the pinnacle of this structure is the President. Along with the disaster summary report he receives the President's Military Disaster Report from the Department of Defense. At the

same time he may receive a request for federal assistance from the Governor.<sup>12</sup>

FEMA employs its response plan to assist the state's restoration to normalcy. FEMA contacts the State Coordinating Officer (SCO) for emergencies through its Federal Coordinating Officer (FCO) and the disaster is addressed through the use of the ESF. This effort described above proved itself after Puerto Rico and the United States Virgin Islands were struck by Hurricanes Hugo (1989) and Marilyn (1995), and many homes and businesses were destroyed.<sup>13</sup>

CARICOM:

In comparison to FEMA, the Caribbean Community (CARICOM)<sup>14</sup> was initially formed by Belize, Guyana, and several other Caribbean governments to provide mutual assistance to their island nations in the event disaster strikes. It now includes most of the nations in the Caribbean basin. Although both emergency systems may render the same services and results, CARICOM's capabilities are not as great as FEMA's emergency service functions. The results of CARICOM's effort usually provide as much comfort as possible until the other island nations can assemble and deploy their resources to the nation that requires the relief.<sup>15</sup> Further relief efforts would then follow from outside the Caribbean basin, such as economic and humanitarian aid from the U.S., Britain and France, not to mention the services and support from non-governmental organizations. These latter efforts usually come during the

reconstruction phases of the disaster. It is therefore important for CARICOM to provide immediate relief and security at the time disaster strikes.

Like FEMA, CARICOM is and has been a constant responder to the devastation of storms and hurricanes. In an attempt to mirror the efforts of the emergency service functions of FEMA, CARICOM has created the Regional Security System (RSS). Established shortly after the Grenada invasion in 1983, CARICOM's main mission is to prevent a similar situation by insuring that the island nations have a response mechanism to address the sudden overthrow of a government, provide a quick reaction force to quell civil disturbances, and provide temporary relief to those nations afflicted by natural disasters.<sup>16</sup>

The RSS is a small but effective force. Its organization consists of police forces, military detachments, signal and medical personnel from each island nation. As CARICOM evaluates the crisis at hand, each nation supports the effort by providing the required manpower, vehicles, boats and medical supplies.

The international community, consisting primarily of the US, United Kingdom (UK), France and Venezuela, provides the resources that train, transport, house and evaluate the RSS's ability to respond to an emergency. To maintain proficiency, the RSS participates in an annual exercise in the Caribbean called 'Tradewinds'. Tradewinds is a four phased exercise. It has a maritime/naval operations phase where they exercise a multinational effort to interdict drug trafficking, practice

search and rescue, and other operations specific to one or more island nations. In the natural disaster phase a scenario is enacted in a specific island nation. Operations such as evacuation, emergency housing, medical care and feeding are worked. The land forces training phase takes place on Puerto Rico. This is purely military training aimed at preparing police and military forces for security duty during disasters. The final phase is the establishment of a logistical base in the host nation. This a culmination of three previous phases that tests the validity of the emergency training. Each phase allows the RSS to be thoroughly familiar with the nation's governmental infrastructure and terrain. This is invaluable for operational planning and execution when necessary.

There are some hindrances to CARICOM's efforts. CARICOM has no air assets other than the private airlines that use local airports as connecting hubs. It must rely on diplomatic avenues to request airlift assistance to move to the stricken nation. This is normally coordinated through the US Ambassador assigned to Barbados.

The procedure for procuring airlift is well established. The Ambassador reviews CARICOM's request, confirms the need for assistance and notifies the State Department. The State Department in turn advises the Secretary of Defense of the impending emergency, The SECDEF then notifies CINCSOUTH who provides assistance in the form of air assets, tentage, personnel and supplies gathered from within his Area of Operations (AO).

Further assistance in the form of a logistical base is usually provided to assist the continuity of government for the afflicted nation.

The assistance provided by FEMA and CARICOM differ, but the outcome is generally the same. Each organization relies on its military for both a secure environment in which to provide disaster relief and direct support in the relief effort itself. When these disasters occur, FEMA looks to the Department of Defense (DoD) to provide these resources, which in turn usually tasks the U.S. Army.

#### THE US ARMY:

The U.S. Army has been involved in domestic support operations for a considerable time. They are not new. The Army's organization consisting of "the active component (AC), the Army National Guard (ARNG), the US Army Reserve (USAR), and Department of Army (DA) civilians"<sup>17</sup> gives it a unique flexibility to provide varying types of assistance in disaster relief operations, humanitarian assistance and lately, peacekeeping. Even as the Army becomes 'rightsized' it will retain more capabilities such as medical, engineer, military police, aviation, and transportation and more flexibility to operate in the disaster relief environment than its sister services.<sup>18</sup>

The Army's involvement in disaster relief can be traced as far back as the Civil War.<sup>19</sup> The Army's ability to assist in disaster relief operations such as fires, floods and epidemics is well documented. Its efforts in humanitarian operations has

included firefighting, operation of hospitals and the provision of food and supplies for affected civilian populations. This involvement has been in time of both peace and war.<sup>20</sup>

As the 20th century began, the nation came to rely on the Army more than ever to assist in disaster relief. Because of this reliance, the National Command Authority directed the military departments to become more active in emergency management. As a result U.S. Army was tasked with the domestic support mission. In response to this tasking the U.S. Army first wrote and published Army Regulation (AR) 500-60 (Military Assistance to Disaster Relief) in 1924. This regulation limited Army involvement to compelling demands of humanity requiring immediate action or when civil resources are obviously inadequate. Since that time the Army has cooperated with the Red Cross in the major floods of the 1930s, the great Texas City explosion which leveled the city (1947), tornadoes in Texas (1953) and the volcanic explosions in Hawaii (1955) and Washington (1980).<sup>21</sup>

While the Army's role in emergency situations in the Caribbean is well documented, the Army must also work in a multinational operational environment. This requires special consideration because the emergency systems of the U.S. and British island nations are distinctively different. There are vast differences in their resource employment, organization and execution of missions. They require differing circumstances to initiate their response.<sup>22</sup>

The Army's role in these operations has not and should not deter its focus and reason for existence: to fight and win the nation's wars. This role must prevail in spite of the present post cold-war turbulence and sustain our capability to tailor a force to meet the requirements of the National Security and Military Strategies.<sup>23</sup>

In an effort to provide and commit the right 'mix' of forces for civilian emergencies, the Army relies on the National Guard as its 'first line' military response. The Guard is organized within each state and territory and is equipped and resourced at a level that enables it to mobilize and operate as a component of the Army. This referred to as the Guard's federal mission. It is also tasked to provide assistance to civilian authorities in the event civil disturbance or natural or manmade disaster. This is the Guards state mission.

As result of this dual status civilian authorities often make the mistake of thinking they have the authority to task the Guard directly. To prevent this most states and territories have a designated Director of Emergency Services, usually a direct appointee of the Governor, who interfaces directly with FEMA. He directs the state's Emergency Management Agency (EMA). Among several functions of this agency is an Emergency Operation Center (EOC) that coordinates disaster relief efforts. Assigned to this EOC is a military liaison officer who coordinates and approves the request made by the Director for the Guard's resources. By assigning this liaison Guard response to emergencies has

significantly improved in both the efficiency of preparedness and mobilization for disaster relief and effectiveness of the response to the emergency.

In addition, the National Guard Bureau (NGB) has published guidance that mirrors the FEMA's ESF and the security role unique to the Guard in a state active duty status. The Guard incorporates this guidance in its Yearly Training Plans (YTP) and Yearly Training Calendars (YTC) in order to maintain readiness for emergencies within its state or territory.

Field Manual (FM) 100-19, Domestic Support Operations, is used by Army planners to formulate domestic operations concepts and plans for multistate and international contingencies. It outlines detailed roles, responsibilities, legal constraints and logistic arrangements.<sup>24</sup>

The current environmental conditions and the pronounced activity generated by the 1995 storms, require preparation for disasters relief and adherence to evolved policy on domestic support operations which would assist the CINC.

#### THE ROLE OF CINCSOUTH:

The Army forces in the Caribbean must maintain a strong readiness posture in domestic emergency support in order that the Commander in Chief (CINC) may mobilize and deploy those forces in the event of an emergency. While this has caused a partial shift in mission, it will not replace wartime operational requirements. CINCSOUTH, uses the interagency process to determine the best course of action for the emergency at hand. He leads the response

by insuring that the necessary communication is relayed to the appropriate Ambassador. As part of the crisis assessment, the CINC, the Ambassador and the country affected work to develop appropriate courses of action. This usually conforms with the established Memorandums of Understanding (MOU) that have been written and coordinated in the preparatory phases of disaster planning.

By combining the expertise of his planning staff and the Defense Coordinating Officer (DCO), the CINC can allow the DCO operational control of all DoD forces deployed to support the effort. In addition, the DCO has a Defense Coordinating Element (DCE) as his personal support staff.

With the Caribbean region being so diverse, the best military strategy is to utilize the US forces already in that region.<sup>25</sup> The US response to a disaster relief mission in the region relies on the availability and the mobility of its units. These units should be tasked organized and tailored to the geographic of this region. Because these island nations are mostly independent of their 'mother country', the infrastructure is not as modern as that of the US territories and the terrain is usually rugged. Therefore, the roads, airports, docking facilities for loading and offloading equipment and other resources will not accommodate many of the US vehicles, aircraft and ships. Thus it becomes germane to establish in the MOUs that capabilities must include the acquisition of rugged handling and maneuvering equipment. Even though each nation has 'prepared'

airports, the recommended equipment for over land missions should be helicopters and military vehicles that can accommodate the narrow roads on each island.

THE INTERAGENCY CRISIS RESPONSE FOR FOREIGN OPERATIONS:

As the interagency process continues, the Department of Defense and the Joint Staff insure that the Humanitarian Assistance Coordination Center (HACC) is organized and functional. The HACC is key because it "assists with the interagency coordination and planning which provides the critical link between the CINC and other Nongovernmental Organizations (NGO) and Private Voluntary Organizations (PVO). Normally the HACC is a temporary body that functions during the early stages of the operation."<sup>26</sup>

When the "Civil-Military Operations Center (CMOC) or the Humanitarian Operations Center (HOC) are established, the role of the HACC diminishes and its functions are transferred to the existing CINC's staff and crisis action organization."<sup>27</sup> At this point the interagency environment comes into full operation and the formal agreements between the military and the civilian agencies or the MOUs between governments outline the disaster relief effort.

The implementation of the HACC, HOC and CMOC are as essential to the interagency process as is the Federal Emergency Management Agency is to the crisis response within the US. To allow Army operations to supplement state and local resources at their request, the Robert T. Stafford Disaster Relief and

Emergency Assistance Act was passed in 1988.<sup>28</sup> The Act specified that a Federal Coordinating Officer (FCO) shall be appointed by the President to coordinate federal assistance with state and local efforts within the affected area. This act allows each state and territory to create and manage its own Emergency Management Agency, which is lead by the State/Territory Coordinating Officer (S/TCO)s and works closely with FEMA's FCO.<sup>29</sup> The FEMA is implemented after the governor of the afflicted state or territory requests the President to declare his or her state or territory a disaster area. Once the disaster area has been declared, FEMA is then tasked by the President to initiate the Federal Response Plan (FRP). The Army responds as FEMA's security arm under the cover of the FRP.

#### THE SHIFT:

In the next millennium, a shift may occur in the Army's mission as it responds to the tasking of domestic support operations and emergency management directed by DoD. This shift could require the Army not only to prepare for its primary mission of fighting and winning a land war, but expand its role in preparing for disasters, famine, infectious epidemics and other calamities. If this happens it is essential that Army personnel executing emergency assistance activities coordinate with the local government in their area of operations. This coordination will improve civil-military relations and reduce the chances of misunderstandings between the U.S. forces and the local populace, be it domestic or foreign.

#### MILITARY STRATEGY:

The best military strategy to employ in disaster relief within the Caribbean would be to mobilize those forces in the Puerto Rico and Virgin Islands.<sup>30</sup> In place forces are familiar with the culture of the island nations and participate in a program called the People Exchange Program (PEP). PEP was initiated in the late 1980s to establish a cohesive working bond between the U.S. and British island nations by sharing expertise in the areas of training, maintenance, and nation building. The Puerto Rico National Guard has the lead in PEP since it has the facilities and ability to transport and train the nation's soldiers associated with PEP.

We must be careful not to isolate the conditions of the emergency and forget our military strategy. Many soldiers assigned to units within PR and particularly the USVI, are originally from the island nations in the Caribbean. In addition, their political, social and economical interests stem from the associations created and nurtured through the years of exercises and exchange programs. The military strategy to utilize those forces which are an established forward presence in the region is the most feasible for accomplishing the mission, validating its execution, weighing the value of our efforts towards our vital interest, and staying focused on the emergency at hand.

#### CONCLUSION:

The United States and British emergency systems reveal several important differences in the functions of FEMA and

CARICOM. In time of emergency both organizations are proven performers. The particulars for initiating these systems center on disaster assistance required to keep governments and island nations in a semblance of order and return normalcy. While we know FEMA's mission, CARICOM continues to work at problems in the diplomatic channels and develop better ways to request assistance from the US. We also know the US has interests on the islands of Antigua and St. Lucia since it has bases and other facilities there. Should these islands be faced with a hurricane or volcanic eruption, our involvement will be subtle but consistent with the agreements made by the leadership of both islands and the United States.

The United States role in providing domestic support to its states, territories and other nations, has been delegated to the U.S. Army and its reserve components. The Army's historical track record has been very good to date. Its forces will continue to be called upon to play a major role in disaster relief and provide humanitarian assistance both at home and abroad.

As most military roles in disaster relief tend to parallel current military capabilities, there are some indications that additional training will be required to enhance the Army's capabilities. The cost of this training can be offset by public support for an Army that provides relief services both here and abroad. This may cause a 'shift' in mission and structure. The Army may have to modify its capabilities and assign units that

are compatible with this task. Instead of sending combat troops to assist in these situations, the most suitable units to perform this mission are those of the Combat Service Support (CSS), primarily Military Police (MP) and Field Service (FS). These units are mobile, self sustained and can organize as teams to meet the mission requirements. For example, an MP Corps Support Company should be deployed in a disaster area for security. With an authorized strength of 172 personnel and 44 HUMMVs they are best suited for Circulation Control and Security. Its mess section can feed up to 6000 prisoners or refugees. An FS unit with 104 personnel, a field kitchen, a laundry and bath and a fabric repair sections are suited for emergency human services. A Water Purification (WP) unit with 4 Reverse Osmosis Pump units (ROWPU) that can produce 18,000 gallons of water in a matter of hours. An Engineer (EN) detachment with 61 personnel organized in a horizontal and vertical configuration of plumbers, electricians, carpenters and masons will provide more long term rebuilding capabilities. These units are within the force structure of the Guard and have previously proven valuable to the states, territories and local governments during disaster relief operations. Their employment requires previous negotiation by governors and the State Department but they are available and fully capable of performing the mission.

It is essential that U.S. personnel executing emergency assistance activities coordinate with the local government in their area of operations. This coordination will improve civil-

military relations and reduce the chance of misunderstandings between the U.S. forces and the local populace, be it domestic or foreign.

Finally, the success of the Army in disaster support operations depend on its well-trained, well-equipped and well-led soldiers.<sup>31</sup> This success, when combined with the resources available in the civilian community, such as those in FEMA, CARICOM and the Guard, simplify the Army's mission. We must keep in mind that we do not always have a war to fight. As the current changes in the world's weather patterns prevail, the mission of disaster relief is moving higher on our priority list.

## ENDNOTES

1. The author is a member of the Virgin Islands National Guard presently serving as the Plans, Operations and Military Support Officer. One concurrent duty is to serve as liaison to the Virgin Islands Territorial Emergency Management Agency (VITEMA).
2. U.S. Federal Emergency Management Agency, Disaster Operations-A Handbook for Local Governments, Washington, D.C., July 1981, pp 81-85.
3. U.S. Army Southern Command, After Action Report on Guatemala. pp 1-10. This reports on an earthquake in February 1976.
4. U.S. Federal Emergency Management Agency: *FEMA's Mission*, accessed at: <http://www.fema.gov/fema/mission.html>, 17 May 1996.
5. U.S. Department of the Army. Field Manual 100-19: Domestic Operations, Washington D.C., July 1, 1993, pp 2-3. Also published as Fleet Marine Force Manual 7-10, by the U.S. Marine Corps.
6. The Federal Response Plan, U.S. Federal Emergency Management Agency, Washington, D.C.: 1992, pg 14.
7. Personal interview with Dr. Roy Ward, Director of Emergency Planning, U.S. Virgin Islands, March 20, 1996.
8. Federal Response Plan, pg. 12a.
9. A Variable Resolution Approach to Modeling Command and Control in Disaster Relief Operations, Santa Monica: RAND, 1993, pg 23.
10. The Federal Response Plan, 1992.
11. A Variable Resolution Approach to Modeling Command and Control in Disaster Relief Operations, pg 24.
12. Ibid, pg 24.
13. SGT Dennis McCluster and SPC Christine Lett, *The Virgin Islands Battle Back*, US Army: Soldiers Magazine, November, 1995, pp 4-5.
14. CARICOM: The Caribbean Community, briefing by Brig Gen Rudyard Lewis, Chief of Staff, Barbados Defense Forces and Chief Coordinator for the Regional Security System, Exercise Tradewinds

1993.

15. Personal interview with LTC Clark Lynn, U.S. Army, Military Liaison to the U.S. Ambassador to Barbados, March 29, 1996.
16. Robert Freeman Smith, Mixing Rum and Coca-Cola, Washington, D.C.: The Caribbean World and the United States, 1994, pp 60-61.
17. U.S. Department of the Army. Field Manual 100-1: The Army. Washington, D.C., June 14, 1994.
18. Charles Clark, Disaster Response - Does the Country Need a New National Strategy?, CQ Researcher 3, no. 38, 1992, pg 641-644.
19. Field Manual 100-19, Domestic Support Operations, pg 1-1.
20. Ibid, pg 2-3.
21. William A. Anderson, Military Civilian Relations in Disaster Operations, Columbus: The Ohio State University Press, 1968, pg 6.
22. Field Manual 100-19, Domestic Operations, pg 3-1.
23. Thomas G. Harrison, Peace Employment of the Military - The Army's Role in Domestic Disaster Assistance, Carlisle Barracks, PA: U.S. Army War College, 1992, pg 9.
24. U.S. Department of the Army. Field Manual 100-19: Military Support to Civilian Authority (Coordinating Draft), Washington, D.C., January 1993.
25. Field Manual 100-19, Domestic Support Operations, Chapters 2-4.
26. U.S. Department of Defense. Joint Publication 3-08, Interagency Coordination During Joint Operations, Vol 1, Washington, D.C., 28 September 1994, pg 1.
27. Ibid, pg 2.
28. Ibid, pg 2.
29. Ibid, pg 22.
30. Clark, Disaster Response - Does the Country Need a New National Strategy?, pg 897.
31. Sam Nunn, Domestic Missions for the Armed Forces, Carlisle Barracks, PA: The U.S. Army War College, Strategic Studies Institute, February, 1993, pg 3.

## BIBLIOGRAPHY

1. Anderson, William A., Military Civilian Relations in Disaster Operations, Columbus: The Ohio State University Press, 1968.
2. Clark, Charles S., Disaster Response - Does the Country Need a New National Strategy?, CQ Researcher 3, no. 38, 1993.
3. U.S. Department of the Army, Field Manual 100-19, Domestic Support Operations, Washington, D.C.: July 1, 1993.
4. U.S. Federal Emergency Management Agency, The Federal Response Plan, Washington, D.C.: 1992.
5. Harrison, Thomas G., Peacetime Employment of the Military-The Army's Role in Domestic Disaster Assistance, Carlisle Barracks, PA: U.S. Army War College, 1992.
6. McCluster, Dennis, SGT. and SPC Christine Lett, The Virgin Islands Battle Back, U.S. Army: Soldiers Magazine, November 1995.
7. Nunn, Senator Sam, Domestic Missions For The Armed Forces, 1993, Carlisle Barracks, PA: U.S. Army War College, Strategic Studies Institute, February 1993.
8. Rand, A Variable Resolution Approach to Modeling Command and Control in Disaster Relief Operations, Santa Monica: 1993.
9. Schrader, John Y., The Army's Role in Domestic Disaster Support: An Assessment of Policy Choices, Santa Monica, CA: RAND, 1993.
10. Smith, Robert Freeman, Mixing Rum and Coca-Cola, Washington, D.C.: The Caribbean World and the United States, 1994.
11. U.S. Army Southern Command, After Action Report on Guatemala, February, 1976.
12. U.S. Department of the Army, Field Manual 100-1: The Army, Washington, D.C., June 14, 1994.
13. U.S. Department of the Army, Field Manual 100-19: Domestic Operations, Washington, D.C., July 1, 1993.
14. U.S. Department of Defense, Military Support to Civil Authorities. Department of Defense Directive, Washington, D.C.:15 January 1993.

15. U.S Department of Defense, Directive 3025.1, Military Support to Civil Authorities (MSCA), Washington, D.C.: July 1, 1993.
16. U.S. Department of Defense, Joint Publication 3-08, Interagency Coordination During Joint Operations, Vol 1, Washington, D.C., 28 September 1994.
17. U.S. Federal Emergency Management Agency. "FEMA's Mission." <http://www.fema.gov/fema/mission.html>, accessed 17 May 1996.
18. U.S. Federal Emergency Management Agency, Disaster Operations - A Handbook for Local Governments, Washington, D.C.: July, 1981.